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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,091	08/04/2003	Edward L. Cochran	H0004807 (256.150US1)	6544
21186	7590	12/29/2006	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			STARKS, WILBERT L	
		ART UNIT	PAPER NUMBER	
		2129		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	12/29/2006	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/634,091	COCHRAN, EDWARD
	Examiner	Art Unit
	Wilbert L. Starks, Jr.	2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 November 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application
6) Other: _____

DETAILED ACTION

Claim Rejections - 35 U.S.C. §101

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-17 is directed to non-statutory subject matter.

2. None of the claims is limited to practical applications, as required by the Supreme Court and the Federal Circuit. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "possible motivation" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete

agreement with those decisions. *Warmerdam* is consistent with *State Street's* holding that:

Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result' -- a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601.

4. True enough, that case later eliminated the "business method exception" in order to show that business methods were not *per se* nonstatutory, but the court clearly *did not go so far as to make business methods per se statutory*. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were *per se* statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

5. The court was being very specific.

6. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world monetary data beyond the transformation in the computer – i.e., "post-processing activity".)

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7. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...the dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, 'an idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation'. *In re Warmerdam* 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the “dispositive issue” when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is “useful, concrete, and tangible” in similar cases. Accordingly, the Examiner finds that Applicant manipulated a set of abstract “possible motivations” to solve purely algorithmic problems in the abstract (i.e., what *kind* of “possible motivations” are used? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?) Clearly, a claim for manipulation of “possible motivations” is provably even more abstract (and thereby less limited in practical application) than pure “mathematical algorithms” which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.

10. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of “useful, concrete, and tangible” the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a “useful, concrete and tangible result”. There is only manipulation of abstract ideas.

11. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

Finally, the decision in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that 'taking several abstract ideas and manipulating them together adds nothing to the basic equation'; hence, the court held that the claims were properly rejected under §101 ...

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Whether one agrees with the court's conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

12. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the "useful, concrete, and tangible" nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

13. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant's phrase "possible motivation" is simply an abstract construct that does not provide limitations in the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street* and *Warmerdam*, is straightforward and clear. The claims take several abstract ideas (i.e., "possible motivations" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-17 are, thereby, rejected under 35 U.S.C. §101.

Claim Rejections - 35 U.S.C. §112

The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how to practice the undisclosed practical application*. This is how the MPEP puts it:

("The how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112."); *In re Kirk*, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, otherwise an applicant would anomalously be required to teach how to use a useless invention.") See, MPEP 2107.01(IV), quoting *In re Kirk* (emphasis added).

Therefore, claims 1-17 are rejected on this basis.

Response to Arguments

Applicant's arguments filed 11/15/2006 have been fully considered but they are not persuasive. Specifically, Applicant argues the following:

Argument 1

§101 Rejection of the Claims

Claims 1-14 were rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. This rejection is respectfully traversed. In addition, new claims 15-17 are submitted, and believed entirely consistent with claim 5 of Warmerdam, which was found to be allowable.

Claim 5 of Warmerdam was not appealed on the basis of rejections under §101.

The Board denied patentability solely on the basis that it violated 35 U.S.C. §112, second paragraph...not 35 U.S.C. §101. Applicant argues that claim 5 was deemed "patentable subject matter" in Warmerdam, and therefore it is statutory. The issue was not even addressed by the Federal Circuit with respect to that claim. Here is the quote from that case that clarifies the issue:

"Claim 5 is for a machine, and is clearly patentable subject matter. The Board denied patentability on the grounds it was indefinite, a fatal vice under 35 U.S.C. Section 112, second paragraph. Warmerdam argues that claim 5 conforms to the conventional product-by-process format, and thus is definite." In re Warmerdam, 3 F.3d 1354, 1361 (Fed. Cir. 1994)

Applicant's use of the Federal Circuit's decision regarding claim 5 is an erroneous application of a decision regarding a §112 issue. Applicant assumes that there is some sort of applicability to §101 doctrine. There is no such applicability. Applicant has not shifted his burden of showing that his claims are statutory and Examiner's rejection of those claims STANDS.

Argument 2

In paragraph 6 of the Final Office Action, it is indicated that the State Street court was careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." The trading activity was said to be a further practical use of the real world monetary data beyond the transformation in the computer i.e., "post processing activity". Paragraph 7 goes on to state that Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

In response, claim 1 of the patent at issue in State Street was interpreted to transform data, representing discrete dollar amounts, by a

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machine through a series of mathematical calculations into a final share price. This was then stated to be a practical application of a mathematical algorithm, formula or calculation because it produces a useful, concrete and tangible result - a final share price for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

It should be noted that the claim itself does not recite the practical application stated by the court, but is interpreted to provide the final share price. The practical application itself was not recited in the claim. As stated in the previous response, the practical application of the methods claimed in the present application is derived directly from the claimed decision outcomes, which at least in claims 5 and 14, as well as new claims 15 - 17, involve computers, and are fixed for recording purposes. These decision outcomes have an associated practical application as described in the detailed description at paragraph [0038]: "The goal is not so much to perfectly predict every attack (although clearly the devastating scenarios need to be responded to), but to identify common vulnerabilities to efficiently utilize resources in protecting such vulnerabilities." Thus, decision outcomes may, as in State Street, be relied upon by government authorities to protect the public from terrorism. Thus, the currently claimed invention has a practical application, and is not merely taking several abstract ideas and manipulating them together as in Warmerdam.

Examiner disagrees.

Claim 1 in the case at issue in State Street¹ did in fact recite the practical application in the claims. It had specific and numerous limitations of the application of its algorithms to "funds," "assets," "percentage shares," "incremental income," "year end income," "expenses," "capital gain," etc. These are not only limitations to discrete dollar values, but they are limitations to the specific kinds of dollar values, whether they be expenses, capital gains, etc.

Here is a direct quote of that claim with the practical applications of the data processing in bold:

¹ I.e., allowed case number 5,193,056. Hereafter referred to as the '056 patent.

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1. A data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising:
 - (a) computer processor means for processing data;
 - (b) storage means for storing data on a storage medium;
 - (c) first means for initializing the storage medium;
 - (d) second means for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds, assets and for allocating the percentage share that each fund holds in the portfolio;
 - (e) third means for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund;
 - (f) fourth means for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and
 - (g) fifth means for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

Applicant's argument does not comport at all with the facts. Examiner finds the argument to be unpersuasive.

Applicant is required to limit the practical application of the claimed invention in the claims. The rejections STAND.

Argument 3

In paragraph 13 of the Final Office Action, it is stated that "possible motivation" is simply an abstract construct that does not provide limitations in the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. This assertion is respectfully traversed. Motivations relate to real world concepts as illustrated in FIG. 7: destabilize US economy, inhibit US ability to wage war, destabilize US political system, sway international opinion, divide allies and others. When weighted as claimed, these are transformation of data related to real world phenomena, just as a dollar amount represents some quantification of

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value. As can be seen, there are many possible motivations, and an itemized list may unduly limit the scope of the claim.

First, Applicant did not claim "motivations." Applicant claimed "possible motivations." There is no guarantee in the claims that "motivations" even exist.

Second, "motivation" is not a quantified real world thing in Applicant's claims...they are human thoughts. Human thoughts are inherently abstract things that are not by themselves patentable. Likewise, the manipulation of abstract things...such as human thought is still abstract.

Third, what kind of sensing would be required to capture these "motivations?" Examiner finds Applicant's argument that the "motivations" are real world, measured phenomena unconvincing. Applicant failed to disclose the sensors required for the mind-reading task of "identifying" these "motivations," as Applicant claims. Applicant has failed to limit the claims to real world, measurable practical applications, therefore, the rejections STAND.

Argument 4

Claims 15 and 16 have been added, and characterize different aspects of the invention in terms of actions occurring in a computer system. The claims are similar to claim 1, but specifically recite actions occurring in a computer, such as recording, weighting, combining and creating. They also refer to lists that are fixed for recording. Claim 5 of Warmerdam was found to be patentable, while claim 1 was found only to contain abstract concepts. Claim 5 simply transforms the abstract concepts of claim 1, into a machine with a memory:

"5. A machine having a memory which contains data representing a bubble
hierarch generated by the method of any of claims 1 through 4."

Even if claim 1 is still found to contain only abstract concepts, claims 15 and 16 include the method elements of claim 1 and further

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recite a physical computer readable medium that causes a computer to perform a method, and also recite elements that utilize memory accessible by the computer. Data is stored on the computer and transformed by the computer. Claim 16 even recites that a most likely target is identified, a clear real world practical application. Claim 17 identifies the type of model used. Thus, claims 15-17 are analogous to claim 5 of Warmerdam, and recite statutory subject matter.

First, as shown in response to Argument 1 above, claim 5 of Warmerdam was not appealed on §101 grounds, therefore, the Federal Circuit did not make any decision on the merits regarding §101 with respect to that claim. The claim was appealed only on §112, second paragraph issues.

Second, Applicant asserts that products of manufacture (i.e., computer program steps on a computer readable medium) are per se statutory.

Not true.

If that were true, it would be an obvious, easy to apply, bright line rule that "products of manufacture" are statutory under any and every condition. There is no such per se rule in §101 doctrine. The Patent Office's job would be much easier and the Courts' job much more difficult, if there were such a per se rule. Here is what the Federal Circuit has actually said about the issue:

"Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. AT&T v. Excel, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999) citing In re Alappat, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)"

Further, the Court held that:

"Furthermore, the Supreme Court's decisions in Diehr, Benson, and Flook, all of which involved method (i.e., process) claims, have provided and supported the principles which we apply to both machine- and process-type claims. Thus, we are comfortable in applying our reasoning in Alappat and State Street to the method claims at issue in this case." AT&T v. Excel, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999)

The Federal Circuit was quite clear as to the fact that the scope of §101 is the same regardless of the form -- machine or process -- in which the claim is drafted. Examiner finds no logical problem with including computer program steps on a computer readable medium (i.e., a "product of manufacture") in this list.

The Courts do not focus on the type of "patentable subject matter" (i.e., apparatus, method, product of manufacture, or composition of matter) in the preamble of the claim. The courts focus on the factors held in Diamond v. Diehr, Alappat, Warmerdam, State Street Bank, and Excel. The Courts had numerous opportunities to create a per se rule, but declined for good reasons to do so. Applicant makes an argument that is directly opposed to Federal Circuit precedent. Examiner feels no motivation to follow Applicant on this course. Applicant's argument is unpersuasive to Examiner and the rejections STAND.

Examiner Searched the New Claims for Statutory Matter

Examiner notes that claim 16 recites as its result:

"creating a list of the possible decision outcomes with respect to the decision making model and indication of ranking of the possible decision outcomes fixed for recording on physical media for use in determining one or more most likely targets, enabling security assets to be efficiently utilized."

Essentially, the resultant data are a list of "possible decision outcomes" and a ranking of "possible decision outcomes." None of these data represent real world, repeatable data.

Further, the later statements that the data are "...for recording on physical media..." are not by themselves enough to make the claim statutory. As the Federal Circuit said:

"Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. AT&T v. Excel, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999) citing In re Alappat, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)"

Claiming the method on a computer readable medium simply makes the claim for a "product of manufacture." As shown before, "products of manufacture" are not per se statutory. Claim 17 adds no statutory matter to the claim, but improperly makes a method dependent on a product of manufacture. Since claim 16 is incorporated by reference to claim 17, claim 17 must include the product of manufacture limitations of claim 16.

Applicant has failed to limit the claims to real world, measurable practical applications, therefore, the rejections STAND.

Argument 5

§112 Rejection of the Claims

Claims 1-14 were rejected under 35 U.S.C. §112, first paragraph, because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This rejection is respectfully traversed for the reasons given above.

Applicant has not overcome the utility rejections of the claims, therefore, the §112, first paragraph rejections STAND.

Argument 6

For clarification, the Final Office Action on page 11 indicates that Applicant believes that the Federal Circuit regards money as an abstract thing. This is not what Applicant wrote or believes. With respect to page 15, Argument 6, the Applicant only meant to indicate that the claim itself need not recite the practical application. Applicant does agree that the claimed subject matter should have a practical application.

Examiner disagrees; Applicant wrote the following:

"Money and value are abstract concepts in themselves, yet inventions that quantify them are found patentable." See, Applicant's filing as of 05/10/2006, page 6 bottom paragraph.

Regardless of whether Applicant believes it, he wrote it plainly to the record that "money and value are abstract concepts" and implied that the Federal Circuit had this in mind when finding related inventions patentable.

That is a misleading statement.

Applicant further asserts that Applicant actually meant to indicate that "the claim itself need not recite the practical application."

Examiner disagrees: The term "practical application" did not appear anywhere in that paragraph. That was not the issue Applicant raised in that argument.

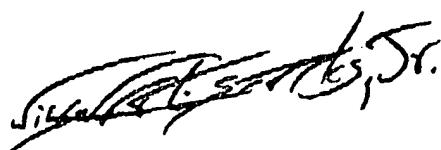
Bottom line: Applicant has failed to limit his claims to a practical application (i.e., "practical utility.") Accordingly, the rejections of the claims STAND.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

S. P. E. David Vincent **(571) 272-3080**

Official (FAX) **(571) 273-8300**



Wilbert L. Starks, Jr.
Primary Examiner
Art Unit 2129

WLS

23 December 2006